REMARKS

The Official Action of June 3, 2005 has been carefully considered. Applicant appreciates the Examiner's thorough review of the application. The following changes and remarks are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Applicant wishes to thank the Examiner for taking the time to interview this application by telephone with the undersigned on September 6, 2005. During the interview, the independents were discussed. Particularly, language suitable to overcome the 102 rejections were discussed. In addition, Grage (U.S. Patent No. 3,110,993) was reviewed and discussed in light of the pending Official Action. In regards to the Grage reference, it was noted that the grinding wheel's working surface is perpendicular to the rotational axis of the wheel. In light of the discussions from the interview with the Examiner, Applicant has prepared the following remarks.

Claims 1-24, 26, 27 and 29-34 remain pending in this application and claims 2-5, 10, 11 and 13-19 are currently withdrawn from consideration. Claims 1, 9, 11, 12, 22, 27 and 34 have been amended for clarification. Support for these amendments can be found in the specification and drawings. Thus, the amendments do not involved any issue of new matter or raise any new issue after final rejection. Claim 28 has been canceled. As set forth below, it is believed that claims 1-24, 26, 27 and 29-34 are in condition for allowance.

In the Official Action, the Examiner rejects claims 1, 6-9, 12, 21-24, 26, 29, 30 and 34 under 35 U.S.C. §102(b) as being clearly anticipated by Grage. Applicant respectfully traverses this rejection for the reasons stated more fully below.

Claim 1 recites a machining device for machining a surface of a workpiece including a tool and a fluid delivery system. The tool is at least partially formed from an abrasive

material having an open cell porous structure, the tool includes a rotational axis and an outer peripheral surface radially disposed at a distance from the rotational axis, the outer peripheral surface includes a workpiece interface adapted to interface with and machine a surface of a workpiece. The fluid delivery system delivers fluid to the workpiece interface. The fluid delivery system is stationary and operative to disperse fluid to contact the tool primarily at a location inboard from the outer peripheral surface and to deliver the fluid into the tool for transmission into and through substantially the entire open cell porous structure of the tool to the workpiece interface.

Claim 22 recites a method which includes the steps of providing a workpiece; providing a tool at least partially formed from an abrasive material having an open cell porous structure, the tool including a rotational axis and an outer peripheral surface radially disposed at a distance from the rotational axis, the outer peripheral surface including a workpiece interface; providing a stationary fluid delivery system; dispersing fluid from the fluid delivery system such that the fluid is delivered into substantially the entire open cell porous structure of the tool after contacting the tool primarily at a contact location inboard from the outer peripheral surface of the tool; rotating the tool about the rotational axis such that fluid is transmitted through substantially the entire open cell porous structure of the tool to the workpiece interface; and machining the workpiece with the workpiece interface of the tool at a machining zone.

Claim 27 recites a method of machining a workpiece which includes the steps of providing a workpiece; providing a tool at least partially formed from an abrasive material having an open cell porous structure, the tool including a rotational axis and an outer peripheral surface radially disposed at a distance from the rotational axis; providing a stationary fluid delivery device; dispersing fluid from the fluid delivery device such that the

fluid contacts the tool primarily at a contact location inboard from the outer peripheral surface of the tool and is delivered into the open cell porous structure of the tool; rotating the tool about the rotational axis such that fluid flows through substantially the entire open cell porous structure; machining the workpiece with the outer peripheral surface of the tool at a machining zone, wherein a controlled radial discharge of fluid form the open cell porous structure is provided at the machining zone; and modifying parameters of the fluid delivery device to compensate for changes in material characteristics of the tool in order to assist in maintaining proper dispersal of fluid from the open cell porous structure at the machining zone.

Independent claim 34 recites a machining device for machining a surface of a workpiece. The machining device includes a tool, a fluid delivery system, and a deflection member. The tool is at least partially formed from an abrasive material having an open cell porous structure. The tool includes a rotational axis and an outer peripheral surface radially disposed at a distance from the rotational axis. The outer peripheral surface includes a workpiece interface adapted to interface with and machine a surface of a workpiece. The fluid delivery system is for delivering fluid to the workpiece interface. The fluid delivery system is operative to disperse fluid to contact the tool primarily at a location inboard from the outer peripheral surface and to deliver the fluid into the tool for transmission into and through substantially the entire open cell porous structure of the tool to the workpiece interface. The deflection member assists in directing fluid to the contact location.

The Grage reference discloses grinding wheels, particularly related to grinding wheels on portable grinders used in the finishing of granite and other stone surfaces (column 1, lines 10-13). Grage discloses that the downwardly facing edge of the side wall provides the work performing surface of the grinding wheel (column 2, lines 10-13 and Fig. 2).

Moreover, Grage teaches preventing the release of liquid from the side wall due to centrifugal force by coating the side wall with a liquid-impervious substance (column 2, lines 54-65).

The present independent claims 1, 22, 27 and 34 each recite limitations directed to the tool having an outer peripheral surface radially disposed at distance from the rotational axis, however, Grage fails to teach such a limitation. In contrast, the Grage reference discloses having liquid pass out of the downwardly facing edge of the grinding wheel (i.e., the work performing surface) (column 2, lines 10-13 and Fig. 2). Moreover, Grage teaches coating the side wall of the grinding wheel to prevent the release of liquid from the side wall so that the liquid passes through the downwardly facing edge (column 2, lines 54-65). The downwardly facing edge of the grinding wheel (work performing surface) as taught by Grage is perpendicular to the rotational axis of the wheel and is not radially deposed at a distance from the rotational axis. As such, Grage does not antipciate the present inventive devices and methods as set forth in claims 1, 6-9, 12, 21-24, 26, 29, 30 and 34. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 1, 6-9, 12, 21-24, 26, 29, 30 and 34.

Claims 32 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Grage. The Examiner asserted that Grage discloses that the tool is abrasive and that it would have been obvious to one of ordinary skill in the art to consider using a superabrasive material with such a tool. Applicant respectfully traverses this rejection. As discussed above for claim 1, from which claims 32 and 33 depend, the machining device is not anticipated by Grage, and the teachings of Grage do not overcome those deficiencies set forth above. As such, Applicant respectfully requests reconsideration and allowance of claims 32 and 33.

Claims 20, 27 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Grage in view of Wohlmuth U.S. Patent No. 4,438,598 (hereinafter referred to as

"Wohlmuth"). However, Applicant submits that claims 20, 27 and 31 are nonobvious and patentably distinguishable over Grage in combination with Wohlmuth. Accordingly, this rejection is traversed and reconsideration is respectfully requested. As discussed above, claims 1 and 22 from which claims 20 and 31 depend are not anticipated by Grage and the teachings of Wohlmuth do not overcome those deficiencies set forth above, as such, Applicant respectfully requests reconsideration and allowance of claims 20 and 31.

Independent claim 27 also recites the limitation that the tool includes a rotational axis and an outer peripheral surface radially disposed at a distance from the rotational axis. Once again, Wohlmuth does not overcome this deficiency, and, as such, Grage alone or in combination with Wohlmuth fails to teach the present inventive methods of claim 27. Accordingly, for these reasons, Applicant respectfully request reconsideration and allowance of independent claim 27.

It is believed that the above represents a complete response to the Examiner's claim rejections, and therefore places the present application in condition for allowance. Applicant further requests reconsideration and allowance of claims 2-5, 10, 11 and 13-19 that were previously withdrawn by the Examiner since these claims depend directly or indirectly from allowable claim 1. Reconsideration and an early allowance of claims 1-24, 26, 27 and 29-34 is therefore respectfully requested.

Respectfully submitted,

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